

To explore delirium in liver transplant unit patients and its management

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Abstract

Methods: This preliminary study explored, through purposive sampling, patients WHO were hospitalized within the liver ICU of a medical centre in southern (IRB approval range 201601364B0) between November twenty five, 2016, and Gregorian calendar month twenty four, 2017. Before aggregation the delirium-related information of the patients, a delirium assessment scale was developed by the scientist and one nursing professional person (NP) within the liver ICU. The content validity of the delirium assessment scale was evaluated by 3 ICU medical and nursing consultants. in addition, one woman and one NP ascertained, assessed, and recorded the delirious behaviours of 9 liver transplant ICU patients throughout the day and night shifts to make sure the consistency of assessment. once making certain the content validity and consistent assessment of delirium, the NP formally collected the information of liver transplant ICU patients by victimisation the delirium assessment scale.

Findings: The content validity of the delirium assessment scale, evaluated by 3 ICU medical professionals and one NP. moreover, most patients exhibited CRP starting from twenty to sixty mg/L. the very best frequency of sedative administration was ascertained within the 1st week of hospitalization, whereas the pain medication was used for nearly two weeks. For the twelve liver transplant patients with delirium within the ICU, issues like constipation and spending excretory product were managed by victimisation softening agents and diuretics. Moreover, psychiatrists were suggested to vary the sleeping or sedation medications that were administered to the patients with delirium. moreover, the patients underwent restriction, early substitution from ventilator, and flavourer wiping to alleviate the distention of the abdomen. the utilization of earplugs and observation TV were conjointly applied to the liver transplanted patients with delirium as different interventions to alleviate their delirium symptoms.

Conclusion: Delirium persisted for extended within the liver transplant ICU patients than normally ICU patients. moreover, higher aldohexose and infection, and lower Hb were ascertained within the twelve liver transplant delirium patients. Sedatives were oftentimes administered within the 1st week of hospitalization for managing delirium, whereas pain medication was administered for nearly two weeks within the twelve liver transplant ICU delirium patients. additionally to the medications, different treatments and interventions were applied to the twelve liver transplant ICU delirium patients for managing their delirium.

Keywords: Delirium, ICU, Liver transplant, Patients.

Clinical relevancy

This preliminary study demonstrates that delirium in liver transplant

ICU patients can be prevented, controlled, and managed supported these scientific findings by the methods designed by the aid professionals.

Background

Intensive Care Units (ICUs), which offer twenty four h service to patients, have a peculiar and closed setting. Wu, Gao, and Ming dynasty [1] ascertained that patients in ICUs exhibit changes within the levels of neurotransmitters within the brain thanks to a scarcity of stimuli from the external setting as a result of they're during a closed area. Consequently, these patients usually fail to join forces throughout treatment, so resulting in delirium. A study indicated that the incidence of delirium in 484 medical and surgical ICU patients at a medical centre in northern was seven.44% [2]; but, the incidence of delirium in thirty aware clear surgical ICU patients at a medical centre in central was forty six.7%. Similarly, the incidence of delirium was five hundredth in a hundred and ten ICU patients from a medical centre in southern [3,4]. Specifically, Lin et al. [5] reportable that seven.8% of seventy one patients WHO underwent liver surgery developed the surgical delirium following hepatectomy for the treatment of malignant hepatoma (HCC) at a hospital in central. in addition, Wang et al. [6,7] reportable that fifty eight.3% (21/36) of alcoholic patients and thirty one.5% (17/54) of non- alcoholic patients WHO underwent living donor liver transplantation (LDLT) knowledgeable about a minimum of one episode of delirium at a hospital in central.

Most ICU patients cannot join forces with their treatments due to delirium and psychological feature disorders ensuing from vital changes within the ill health and setting, so resulting in the prevalence of complications, prolong the substitution time from ventilation and therefore the tube insertion rate, the length of hospitalization, care wants of the patients, medical price, and a rise within the death [1,2,4]. moreover, Chen et al. [3] reportable that among patients WHO needed mechanical ventilation, the length of hospitalization, monetary value of hospitalization, and death rate were considerably higher for patients with delirium than for those while not. notwithstanding, Olson [8] declared that vital care nurses ought to determine delirium early as a result of it's among the foremost common issues in ICU patients however is usually unnoted or under-recognized. If the health care professionals determine delirium in ICU patients early, they will stop the next disorientation, confusion, non-cooperation, and strange or irritable behaviours within the patients. Consequently, the hospitalization length and death rate of ICU patients with delirium can be reduced, and therefore the operate and quality of lifetime of these patients would possibly improve.

Purpose of the Study

This preliminary study explored delirium in liver transplant ICU patients and its management at a medical centre in southern.

<https://g.page/aonebiryaniarena?share> In the literature review targeted on delirium-occurrence, connected factors, assessment scales, treatment and nursing interventions for the management of delirium in ICU patients.

Related factors

Arend and Christensen [9] critically reviewed fifty eight articles regarding ICU-related delirium and known 2 classes of risk factors, particularly predisposing (advanced age, dementia, transfer from rest home, sensory impairment, material abuses, elevated urine-creatinine magnitude relation, history of tend, CHF, epilepsy, depression) and causative (acute ill health and pharmacology) factors, similarly as 3 classes of contributive factors,

particularly environmental, iatrogenic, and emotional factors. In addition, Fu et al. [2] reportable that, among the physical and psychological aspects, age, sedation frequency, alarm anxiety, and confusion foretold delirium in 484 ICU patients. Moreover, delirium in thirty aware clear surgical ICU patients was considerably associated with their fever, the speed of tube insertion, and restriction used [4]. However, Nouwen et al. [10] reportable that the findings relating to the relationships between delirium, emotional consequences, and neurotic reminiscences were inconsistent once a scientific review of fourteen articles. For liver ICU patients, projected that advanced age and low surgical Hb (Hb) levels area unit potential risk factors contributive to the event of surgical delirium following hepatectomy in patients with HCC at a hospital in central .

Assessment scales

The authors reviewed literature on assessment scales for patients with delirium and known the Confusion Assessment methodology for the medical care Unit (CAM-ICU) [11] as a good and speedy assessment tool for nurses to judge delirium in patients. In addition, Chung et al. [12] evaluated the responsiveness and validity of the Chinese version of the CAM-ICU by victimisation information from thirty one patients at a medical centre ICU in southern . They found that its validity (assessed victimisation the prevalence- and bias-adjusted letter of the alphabet value) was zero.48 ($p < .01$) and its McNamara's check price was $p = .72$. Moreover, once the CAM-ICU was administered by 2 nursing practitioners (NPs, interviewers), the sensitivity calculated approached 89%; the sensitivity was ninety six once performed by a doctor. Consequently, the CAM-ICU was thought of appropriate for ICU nurses to notice the delirium simply and apace.

For assessing the result of medical specialty approach, Arend and Christensen [9] critically reviewed fifty eight articles associated with ICU delirium and known some medication that were ordinarily utilized in the ICU that were related to delirium, particularly anticholinergic medication and sedatives. The anticholinergic medication enclosed antidote, Atrovent, and antibiotics, and the sedatives enclosed antihypertensive, benzodiazepines, ketamine, morphine, fentanyl, ranitidine, bronchodilator, atenolol, corticosteroids, cyclizine, and antipsychotic agent. In addition, projected physiological, psychological, and environmental care interventions for ICU patients. The physiological side enclosed the information for electrolytes, blood routine, and medicine. The psychological side enclosed anxiety, worry, fear, upset (as irritability), and hypoactivity (as apathy). The environmental side enclosed quiet, comfort, music, and acquainted personal utilities.

Methods

This study purposively sampled patients admitted within the liver ICU of a medical centre in southern (IRB approval range 201601364B0) between November twenty five, 2016, and Gregorian calendar month twenty four, 2017. though the CAM-ICU was a lot of appropriate assessment scale than the ICDSC as a delirium assessment scale for patients with delirium within the ICU per the literature review, this study applied the capital of Virginia Agitation and Sedation Scale (RASS) [14] to assess the delirious behaviours of liver transplant ICU patients. Ely et al. [14] tested the RASS in thirty eight medical ICU patients and reportable that the RASS might effectively determine completely different levels of delirium

Results

Sample characteristics

The sample characteristics for the preliminary study of the twelve liver transplant ICU patients with delirium enclosed age, education, job, marriage, drinking habits, diagnoses, range of hospitalizations, and length of ICU keep. Patients' ages ranged from forty three to sixty five years with a mean age of fifty five.7 years. Education ranged from the elementary to school level, with five hundredth of the patients having graduated from

highschool. Among the patients, five hundredth ran businesses, 91.7% were married, and five hundredth had a drinking habit. The amount of hospitalizations ranged from one to eight with a mean of 4 hospitalizations. The length of liver ICU keep ranged from one to twenty six days with a mean length of sixteen.5 days. In addition, the diagnoses of the twelve liver transplant ICU patients with delirium enclosed carcinoma, liver cirrhosis of the liver with or while not alcoholism, liver cell cancer, serum hepatitis infection, viral hepatitis infection, HCC, passage varices, and therefore the chronic ill health as diabetes and adenosis. Table three lists the demographics of the twelve patients with delirium.

In addition to those information, information of the sedation and pain medications were conjointly recorded, as represented. The very best frequency of sedation administration was ascertained within the 1st week of hospitalization, whereas pain medication was administered for nearly two weeks to the twelve liver transplant patients with delirium within the ICU. Moreover, for the twelve liver transplant patients with delirium within the ICU, issues like constipation and spending excretory product were managed by victimisation softening agents and diuretics. Moreover, psychiatrists were suggested to vary the sleeping or sedation medications that were administered to the patients with delirium.

Discussion

For prevalence of delirium, delirium persisted for extended within the liver ICU than within the general ICU units. Wang et al reportable that the durations of ICU keep and hospitalization were considerably longer for each alcoholic and non-alcoholic liver patients with delirium than for patients while not delirium; but, these durations were longer for non-alcoholic than for alcoholic liver patients. Among the factors associated with delirium within the ICU patients, the findings during this study indicated that infection within the twelve liver transplant ICU patients with delirium had the upper levels of CRP, that was almost like the previous report that listed the physical aspects and predisposing factors for delirium.

In terms of treatment and interventions, the literature projected the importance of physiological, psychological, and environmental care interventions for ICU patients [1] For the physiological care, as a result of delirium occurred in the main throughout the primary week, sedation was administered most often within the 1st week of hospitalization to the twelve liver ICU patients with delirium, whereas pain medication was administered for nearly two weeks. In addition, alternative different treatments and interventions during this study enclosed managing the discomfort symptoms by victimisation completely different medications and ways like restriction, early ventilator removal, flavourer wiping, sporting earplugs, and observation TV. However, the interventions utilized in this study differed from those projected by Olson [8], particularly modifying the setting to keep up the sleep-wake cycle of the ICU patients.

Conclusion and Suggestions

In conclusion, delirium persisted for extended within the liver ICU than within the general ICU units. Moreover, higher and lower levels of infection, aldohexose and Hb, severally, than the standardized levels were the key factors ascertained for the delirium within the twelve liver transplant patients. Rather than treating the key factors, sedation was most often administered within the 1st week of hospitalization to the twelve ICU patients with delirium, whereas pain medication was administered for nearly two weeks. Eventually, delirium can be prevented, controlled, and managed by the methods of the health care professionals supported these scientific findings.

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